

Appl. No. 10/707,362
Amdt. dated August 08, 2006
Reply to Office action of July 11, 2006

REMARKS/ARGUMENTS

1. Rejection of claims 2-3, 7-8, 13, and 18 under 35 U.S.C. 112, second paragraph:

Claims 2-3, 7-8, 13, and 18 are rejected under 35 U.S.C. 112, second paragraph as failing to set forth the subject matter which applicant(s) regard as their invention.
5 There is insufficient antecedent basis for the limitation "the reference table" in these claims.

Response:

10 Regarding the rejections of claims 2 and 3, claim 1 contains the antecedent basis for the "reference table" in step (f).

Regarding the rejections of claims 7 and 8, claim 6 contains the antecedent basis for the "reference table" in step (f).

15 Claim 13 has been amended to depend on claim 12 instead of claim 11, and claim 18 has been amended to depend on claim 17 instead of claim 16.

20 As a result, reconsideration of claims 2-3, 7-8, 13, and 18 is respectfully requested.

20 2. Rejection of claims 1, 3, 5-6, 8, 10-11, 13, 15-16, 18, and 20 under 35 U.S.C. 102(e):

Claims 1, 3, 5-6, 8, 10-11, 13, 15-16, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ham (US 2002/0196218).

25 **Response:**

Claims 1, 6, and 11 have been amended to overcome these rejections. Claims 1 and 6 each recite that if the result value equals a first result value, an M-bit first

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image value is selected from a reference table in accordance with the P MSB and the N-bit delayed image data. Then a first data voltage is formed according to the M-bit first image value, and provided to the corresponding data line. Therefore, the M-bit first image value output from the reference table has the same number of bits as the original M-bit image data. In this way, the reference table can provide an M-bit value that can be used to drive the data line.

On the other hand, Ham teaches in Fig. 9 that the look-up table (LUT) 95 only provides the modulated most significant bit data m_b in place of the non-modulated most significant bit data b . A modulated version of the least significant bit data d is not provided by LUT 95. Therefore, Ham fails to teach the limitation of the currently amended claims 1 and 6 of "selecting an M-bit first image value from a reference table in accordance with the P MSB and the N-bit delayed image data and forming a first data voltage according to the M-bit first image value". Since providing the entire M-bit value provides a better voltage driving result than providing only the most significant bits of the M-bit value, the LCD panel utilizing the claimed method of the present invention can be driven more quickly, thereby reducing the response time. Since Ham does not teach all of the limitations of claims 1 and 6, these claims are patentable over the cited prior art.

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Claim 11 has been amended in a way similar to the amendments of claims 1 and 6. Claim 11 now specifies that the LUT outputs an M-bit image value in accordance with the P MSB and the N-bit delayed image data. The multiplexer will then output the M-bit image value or the M-bit image data. Since Ham does not teach a LUT outputting an M-bit image value having the same length as the M-bit image data, claim 11 is patentable over the cited prior art.

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Claim 16 contains the limitations of

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5 "a lookup table (LUT) for outputting an image value in accordance with the P MSB and the N-bit delayed image data;
a multiplexer for outputting Q least significant bits (LSB) of the image value or outputting Q LSB of the M-bit image data in accordance with the result value; and
a data line driving circuit for producing a data voltage in accordance with output of the multiplexer and (M-Q) MSB of the image value, and providing the data voltage to the corresponding data line."

10 That is, the LUT provides an M-bit image value, sends Q LSBs to the multiplexer, and provides the (M-Q) MSBs to the data line driving circuit.

15 In contrast, Ham teaches in Fig. 9 that the look-up table (LUT) 95 only provides the modulated most significant bit data mb in place of the non-modulated most significant bit data b. A modulated version of the least significant bit data d is not provided by LUT 95. Therefore, Ham does not teach all of the limitations contained in claim 16, and claim 16 is patentable over the cited prior art.

20 Furthermore, claims 3, 5, 8, 10, 13, 15, 18, and 20 are dependent on claims 1, 6, 11, and 16, and should be allowed if their respective base claims are allowed. Reconsideration of claims 1, 3, 5-6, 8, 10-11, 13, 15-16, 18, and 20 is therefore respectfully requested.

3. Rejection of claims 2, 7, 12, and 17 under 35 U.S.C. 103(a):

25 Claims 2, 7, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham (US 2002/0196218) further in view of Ham (US 2003/0107546, hereinafter referred to as "Ham II").

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Response:

Claims 2, 7, 12, and 17 are dependent on claims 1, 6, 11, and 16, and should be allowed if their respective base claims are allowed. Reconsideration of claims 2, 7, 12, and 17 is therefore respectfully requested.

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4. Rejection of claims 4, 9, 14, and 19 under 35 U.S.C. 103(a):

Claims 4, 9, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham (US 2002/0196218).

10 Response:

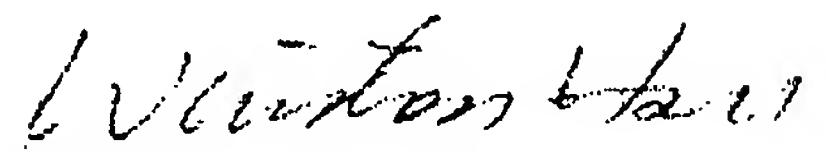
Claims 4, 9, 14, and 19 are dependent on claims 1, 6, 11, and 16, and should be allowed if their respective base claims are allowed. Reconsideration of claims 4, 9, 14, and 19 is therefore respectfully requested.

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In view of the claim amendments and the above arguments in favor of patentability, the applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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Sincerely yours,



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Winston Hsu, Patent Agent No. 41,526
5 P.O. BOX 506, Merrifield, VA 22116, U.S.A.
Voice Mail: 302-729-1562
Facsimile: 806-498-6673
e-mail : winstonhsu@naipo.com

10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)